

Application No.: 10/676,404
Amendment Dated: January 14, 2005
Reply to Office Action of: October 19, 2004

MTS-3474US

Remarks/Arguments:

CLAIM STATUS

Claims 1-24 were pending and stood rejected.

By this Amendment, claims 1, 4-7, 10-11, 14-18 and 21-24 are amended, claims 3 and 13 are canceled without prejudice and new claim 25 is added.

Applicants contend that no new matter has been added by the claim amendments and new claim, and accordingly, entry and approval of same is respectfully requested. Support for the claim amendments and new claim is found throughout the specification, and, more particularly, in the specification at, for example, page 28 last paragraph.

SPECIFICATION AMENDMENT

The Examiner is thanked for pointing out the typographical error in the Preliminary Amendment filed October 1, 2003, and a new amendment correcting this error is included herein.

REJECTION UNDER 35 U.S.C. §112

In the Office Action at page 2, the Examiner asserts that claims 14 and 22 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

Claims 14 and 22 are amended to overcome this rejection under 35 U.S.C. §112, second paragraph.

Reconsideration is respectfully requested.

REJECTION OF CLAIMS 1-2, 6, 8/6, 11, 12, 14, 17, 19/17 AND 20-24 UNDER 35 U.S.C. §102(b) AS BEING ANTICIPATED BY ISHIKAWA ET AL.

In the Office Action at page 3, claims 1, 2, 6, 8/6, 11, 12, 14, 17, 19/17 and 20-24 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,821,006 to Ishikawa et al. (hereinafter referred to as Ishikawa).

Reconsideration is respectfully requested.

Claim 1

The subject matter of claim 3 is incorporated into independent claim 1.

Claim 1 now recites that "said holding member is formed in said predetermined clearance by utilizing a predetermined low relative permittivity material."

Ishikawa discloses that "a plurality of ceramic base plates 7 are respectively engaged with both the sides of the metallic plate 6 and the bottom face of the case member 1. The ceramic base plate 7 is coated all over its surface with silver electrodes to form an electric wall. A dielectric resonator which is a greater segment of a cylindrical dielectric resonator is fixedly baked onto each of said silver electrodes." (See Ishikawa at column 5, lines 6-13.) That is, the silver electrodes are used as a coating to produce the effect of an "electric wall" (i.e., the electric field from the resonator is reflected back by the silver electrodes). Moreover, in another embodiment of the Ishikawa resonator, the resonator may be roughly fixed to some extent by elastic members made of metallic materials. (See Ishikawa at column 11, lines 37-49.) That is, contrary to the structure recited in the present invention of claim 1, the silver electrodes and the metallic materials of Ishikawa are electric conductors and are **high permittivity materials** relative to the permittivity of the resonator of Ishikawa, which is formed as a dielectric element. This is because, in the Ishikawa resonators a high permittivity material (i.e., the silver electrodes or the metallic materials) is used to produce the effect of the electric wall.

Accordingly, claim 1 is not subject to this rejection under 35 U.S.C. §102 and is submitted to be allowable over Ishikawa for the above noted reasons.

Application No.: 10/676,404
Amendment Dated: January 14, 2005
Reply to Office Action of: October 19, 2004

MTS-3474US

Independent claims 11, 23 and 24

Claims 11, 23 and 24, which include similar features to those of claim 1, are also submitted to be allowable for similar reasons to those of claim 1.

Dependent claims 2, 6, 8/6, 12, 14, 17, 19/17, 19/17, and 20-22

Dependent claims 2, 6, 8/6, 12, 14, 17, 19/17, 19/17, and 20-22 each include all of the features of the respective independent claim from which they ultimately depend. Thus, applicant contends that claims 2, 6, 8/6, 12, 14, 17, 19/17, 19/17, and 20-22 are also allowable for at least the reasons set forth above.

REJECTION OF CLAIMS UNDER 35 U.S.C. §102(b) AS BEING ANTICIPATED BY OR, IN THE ALTERNATIVE, UNDER 35 U.S.C. §103(a) AS OBVIOUS OVER MANSOUR ET AL.

In the Office Action at page 3, claims 1, 4, 11, 15 and 22-24 were rejected under 35 U.S.C. §102(b) as being anticipated by WO 01/43221 to Mansour et al. (hereinafter referred to as Mansour).

In the Office Action at page 4, claims 2, 3, 12 and 13 were rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Mansour.

Claim 1 now recites the feature of original claim 3, namely "said holding member is formed in said predetermined clearance by utilizing a predetermined low relative permittivity material." Accordingly, claim 3 is now cancelled without prejudice.

Mansour discloses a support 54 to space the half disk resonator structure 52 away from the housing 56 and a support 74 to space the half disks 70 and 72 away from the housing 76. That is, the structure which seems to correspond to a holding member of the present invention is the support 54 or 74. However, nothing in Mansour discloses or suggests that these supports 54 or 74 are formed by utilizing a predetermined low relative permittivity material (i.e., a material which is low relative to that of the resonator.)

Application No.: 10/676,404
Amendment Dated: January 14, 2005
Reply to Office Action of: October 19, 2004

MTS-3474US

Accordingly, claim 1 is not subject to this rejection and is submitted to be allowable over Mansour for the above noted reasons.

Independent claims 11, 23 and 24

Claims 11, 23 and 24, which include similar features to those of claim 1, are also submitted to be allowable for similar reasons to those of claim 1.

Dependent claims 2, 4, 12, 15 and 22

Dependent claims 2, 4, 12, 15 and 22 include all of the features of their respective independent claim from which they ultimately depend. Thus, applicant contends that claims 2-4, 12, 15 and 22 are also allowable for at least the reasons set forth above.

Dependent Claim 13

Dependent claim 13 is now cancelled without prejudice, its subject matter having been incorporated into independent claim 11.

REJECTION OF CLAIMS UNDER 35 U.S.C. §103(a) AS OBVIOUS OVER MANSOUR IN VIEW OF NISHIKAWA ET AL.

In the Office Action at page 5, claims 5-10, 16-20 and 21 were rejected under 35 U.S.C. §103(a) as being obvious over Mansour in view of U.S. Patent No. 4,423,397 to Nishikawa et al. (hereinafter referred to as Nishikawa).

Reconsideration is respectfully requested.

It is submitted that the additional reference of Nishikawa does not overcome the deficiencies of Mansour because Nishikawa does not disclose or suggest a holding member is formed by utilizing a predetermined low relative permittivity material (see claim 1.) This is because, Nishikawa similar to that of Mansour discloses, for example in Fig. 24, that the Nishikawa resonator "can be mounted on a dielectric support 92" (see Nishikawa at column 8, lines 17-20), but, otherwise, is silent regarding the permittivity of the dielectric support 92 relative to the resonator.

Application No.: 10/676,404
Amendment Dated: January 14, 2005
Reply to Office Action of: October 19, 2004

MTS-3474US

Dependent claims 5-10, 16-20 and 21 each include all of the features of their respective independent claim from which they ultimately depend. Thus, Applicants contend that claims 5-10, 16-20 and 21 are also allowable for at least the reasons set forth above.

REJECTION OF CLAIM 14 UNDER 35 U.S.C. §103(a) AS OBVIOUS OVER MANSOUR IN VIEW OF SYRETT ET AL.

In the Office Action at page 6, claim 14 was rejected under 35 U.S.C. §103(a) as being obvious over Mansour in view of U.S. Patent No. 4,686,496 to Syrett et al. (hereinafter referred to as Syrett).

Reconsideration is respectfully requested.

It is submitted that the additional reference of Syrett does not overcome the deficiencies of Mansour because Syrett does not disclose or suggest a holding member is formed by utilizing a predetermined low relative permittivity material (see claim 1.) This is because, Syrett merely discloses, a printed circuit board 40 preferably of polyetherimide material but, otherwise, is silent regarding the permittivity of the printed circuit board 40 relative to the resonator.

Dependent claim 14 includes all of the features of its independent claim from which it ultimately depend. Thus, Applicants contend that claim 14 is also allowable for at least the reasons set forth above.

NEW CLAIM 25

New claim 25 which is directed to a resonator, recites "a holding member disposed between the dielectric element surface and the opposed housing surface in an area corresponding to at least the entire opposed housing surface to hold said dielectric element and to have a predetermined clearance between the dielectric element surface and the opposed housing surface, a permittivity of the holding member being less than that of dielectric element," and is submitted to be allowable for at least these features.

Application No.: 10/676,404
Amendment Dated: January 14, 2005
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MTS-3474US

Conclusion

In view of the amendments and remarks set forth above, Applicants respectfully submit that claims 1-25 are in condition for allowance and early notification to that effect is earnestly solicited.

Respectfully submitted,

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January 14, 2005

Fran Petrucci

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